

## **ABSTRACT**

A method of manufacturing an optical waveguide using a laser direct writing method is disclosed. More particularly, a method for improving refractive index profile of the optical waveguide by overlapping two or more  
5 beams using Gaussian laser beam is provided. In addition, it can accomplish an improved waveguide characteristics such as an offset structure of an S-bend type optical waveguide and an asymmetrical curve optical waveguide by individually adjusting the overlapped laser beams.